November 4, 1949

The M. W. Kellogg Company
P. O. Box 469
Jersey City 3, New Jersey

ATT: Mr. W. J. Merok

Dear Mr. Merok,

For the continuance of our work on the use of Kel-F we have need for flat sheets of the material in the order of .050 to .060 inch in thickness. The material should have as high a degree of transparency as possible and should be uniform in thickness.

You will recall that you sent us a 2 x 2 inch square sample some time ago which was .059 inch thick. If thirty such squares are available without the name "Kel-F" stamped in them, they would suffice for our immediate needs.

If you will advise me as to the availability and price, I shall be glad to institute a purchase order for the material.

Very truly yours

UNITED STATES RADIUM CORP.

C. C. Carroll
Chief Chemist

CCC:ml

THE M. W. KELLOGG COMPANY

CABLE ADDRESS "MONOLOGG"
NEW YORK OR JERSEY CITY

GENERAL OFFICES AND WORKS
JERSEY CITY 3, N. J.

ADDRESS REPLY TO
POINT OF MAILING
P. O. Box 469

November 10, 1949

Mr. C. C. Carroll
Chief Chemist
United States Radium Corporation
Almedia Plant
Bloomsburg, Pennsylvania

Dear Mr. Carroll:

We are in receipt of your letter of November 4th in which you advise that you are in need of flat sheets of KEL-F of .050" to .060" in thickness.

We are pleased to advise that we can mold in our laboratory sheets of this thickness in the form of a disc having a diameter of approximately 12". A disc of this size would weigh approximately 1/2 pound and is priced at $48.00 per pound, f.o.b. our plant, Jersey City, New Jersey. Terms 30 days net. Delivery of this sheet could be made within two weeks. Every effort will be made to produce the highest degree of transparency. Kindly advise the number of these sheets that you would require and we will immediately schedule this work.

We thank you for your continued interest in KEL-F and assure you of our earnest endeavor to cooperate with you.

Very truly yours,

THE M. W. KELLOGG COMPANY

W. J. Merck dw

W. J. Merck

WJM:dw

STANDARD FORM 243 MATTICK PRINTING CO. - CHICAGO

Inter-House Correspondence

USE THIS FORM FOR ALL HOUSE CORRESPONDENCE—WRITE ON ONLY ONE SIDE OF PAPER

Date 9-7-44

To Carroll & Dooley From G.P.K.

Subject: Optical transmission of Kel-F sheets.

Sample	% transmission	
	G125 Ra	V240, Sa 90
thin	94.2	91.8
.250"	67.2	64.2

PFE ORIGINAL

PUT IT IN WRITING WRITTEN MESSAGES SAVE TIME AND AVOID ERRORS

MEMO TO: C. C. Carroll

FROM: C. W. Wallhausen

DATE: September 6, 1949

I have had a conference with Mr. W. J. Merck of the M. W. Kellogg Company and obtained some information which may be of interest to you.

The present production rate of Kel F resin is approximately 2,000 pounds per month and this can, on about three months notice, be increased to 20,000 pounds per month with still larger supplies possible if there is a demand for the material.

The present price, in lots of 100 pounds, is $19.50 per pound, but Mr. Merck is sure that, if larger quantities are required, the price will soon be reduced to $9.00 to $10.00 per pound and could eventually be reduced to perhaps $4.00 or $5.00 per pound.

The molding of sections 1/4" thick may, however, involve some difficulties with regard to clarity. The problem of obtaining transparency in the resin is that of obtaining quick and uniform cold quenching throughout the entire molding section. Their experience with 1/4" sections is that cooling of the center portion of the section with sufficient speed to obtain a clear part is not possible. The enclosed section of 1/4" thick material is representative of the best which they have been able to obtain.

Perhaps you should make some preliminary determinations on the transmission of this material to see whether a modification in our ideas is indicated. If this degree of opacity decreased the brightness to a considerable extent, it may be necessary to have our plastic parts molded in two or three sections. The outer section could have the contour of our proposed lens but have an overall thickness of not over 1/8". We could then mold an insert which could fit into the lens portion and give us the overall thickness of 1/8".

With such a procedure, it should be possible to obtain two relatively transparent parts which would have better transmission than the single 1/4" thick unit. This is a problem which probably should be considered before we find it necessary to place an order for these lens.

It might also be possible to use two different resins, the outer one being Kel F to give us a hard, solvent resistant finish, and the insert could perhaps be of lucite or polystyrene. This would also appreciably reduce the cost of the lens portion.

Kellogg also carries in stock a variety of flat plates of

various thickness and overal dimensions. If, in our experimental work, we require flat sheets of material, we can order them directly from Kellogg rather than attempt to produce them in the laboratory or having them made outside.

The cost of their standard sheet material which varies in thickness from about 0.01" to 3/16" ranges from $40.00 to $60.00 per pound. The material is available in a rod form, should you find any application for this type of material.

Very little data regarding chemical or physical properties are available, but Mr. Merck reports that the water absorption or water transmission of the resin is Zero Percent and it is, therefore, considerably better than most other thermoplastic resins.

C W W

Vice President - Sales

CWW:rhm
enc.